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Going Multimodal: Programmatic, Curricular, and Classroom Change

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CHAPTER 12

Going Multimodal

Programmatic, Curricular, and Classroom Change

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> In essence, multimodality lets the many-faceted world we live in be more accurately represented and analyzed. We experience life and learn through many different avenues and to try to confine our work to one, namely text, can constrict the possibilities immensely.
>
> —Zach Burns, Kenton Butcher, and Dirk Long, undergraduate students (Conference on College Composition and Communication presentation, March 2007)

As the students note in this epigraph, we do not live in a monomodal world. Rather, we experience the world and communicate through multiple modalities. "To confine" students to learning in only one mode, typically the textual mode in first-year writing courses, indeed limits students' understanding and creative potential—a point that has reemerged in considerations of education and the teaching of writing.[1] Instead, introducing students early in their college careers to the different ways of making meaning using a given mode and to a consideration of the contrastive affordances of other modes as they compose leads them to a

deeper understanding of modality—that is, toward learning "the functional grammar" of modes, as the New London Group (2000) describes it.[2] Furthermore, to use the term of Mary Leigh Morbey and Carolyn Steele (see chapter 10 in this edited volume), such multimodal literacy can enable students eventually to develop "metamodal mastery," "the ability to work across different modes," to understand semiotic complexity, and to create hybrid genres that reach across disciplinary and academic and popular boundaries.

Given the increased complexity and importance of multimodality for learning and communication, the Composition Program at Miami University initiated programmatic, curricular, and classroom changes in 2005 to promote the teaching and learning of multimodal composition. In a dialectical and parallel process we also created the Digital Writing Collaborative (DWC), a network of teachers and students whose mission is to develop and sustain a culture and community of digital writing, learning, and teaching in all areas of English studies, especially in composition. In this chapter we discuss the process and elements of institutional change needed to initiate and sustain a digital composition program—from building alliances across campus to integrating the teaching and learning of multimodal digital composition into our first-year composition curriculum, classroom practices, and teacher training. We open by providing an overview of writing instruction and teacher preparation at Miami, followed by an account of how we worked from this base to develop a digital writing curriculum. We next present some examples of multimodal assignments and narratives of teaching specific modalities. We conclude with a brief summary of the ongoing developments of our program, now in its sixth year, and reflect on the challenges of assessing multimodal compositions and of sustaining digital writing programs.

THE PROGRAMMATIC LEVEL: THE FOUNDATIONS AND CONDITIONS FOR CHANGE

Miami's first-semester, rhetorically focused writing curriculum has included a space for multimodality for the better part of a decade, although we had no digital classrooms to explicitly support multimodal composing until our initiative to revise the program in 2005–2006. At that time the standard curriculum, laid out with detailed pedagogy and assignments in a four-hundred-page teacher's guide, included five recursive sequences organized around a common theme: autoethnography (critical analysis of one's experience, history, and beliefs in relation to the course

theme); rhetorical analysis; argument and research; design your own project; and reflection. With an emphasis on the importance of considering audience, purpose, and appropriate form, the fourth sequence provided a capstone experience of rhetorical knowledge: Students selected, planned, and composed—either individually or collaboratively—an intensive project of their own choosing. Even before our digital initiative, some students pushed their writing outside the bounds of the traditional essay, creating multimodal projects, such as CDs of musical compositions, brochures with visual images, web pages, and documentary videos. In short, students were already leading us into multimodality—and digital multimodality—before we developed digital classrooms and consciously set out to revise our curriculum to be even more explicitly multimodal.[3] Our current curriculum includes five interrelated inquiries: self-inquiry/initial reflection, textual inquiry/rhetorical analysis, issue inquiry/public issue argument, media inquiry/remediation, and e-portfolio inquiry/final reflection.

Historically, our program at Miami has been alert to new technologies, incorporating these into the recommended pedagogy as they emerged—for example, in the early to mid-1990s Listservs started to be used for extending class discussions, and by 2000 course management systems like Blackboard, with its forums and other spaces for writing, were commonly used by most composition instructors. And in 2005 we set up a composition wiki (password-protected) for collaborative writing projects. Despite these examples of integrating technology, no sections of composition were taught in computerized classrooms (at least not since the late 1980s when the program's one computer classroom was released because of lack of adequate funding for computer maintenance and replacement). So, prior to 2005, while we did not focus our curriculum specifically on the integration of digital technologies, we did have many technologies already infused into the culture of composition teaching at Miami. Although computerized technologies are certainly not necessary for multimodal composing, the affordances they provide for integrating visual, aural, and textual elements enable multimodal composing to occur more seamlessly, apply to a wider range of rhetorical situations, and reach potentially more audiences.

As for teacher preparation, we extensively train graduate student instructors in a monthlong, four-credit summer graduate seminar in the teaching of composition before they step into a classroom and a two-semester practicum meeting once a week during their entire first year of teaching. By 2005 we had also incorporated Universal Design for

Learning (UDL) into teacher training. UDL, a philosophy and approach to teaching adapted from the field of architecture, is a movement to design spaces that are not only compliant with the guidelines of the Americans with Disabilities Act (ADA) but that meet the needs of all people throughout their lives. UDL emphasizes core principles for accessible and flexible goals, methods, materials, and assessment in teaching to meet the needs of diverse learners (see Bowe 2000; Bruch 2004; Dunn and DeMers 2002; "Fast Facts" 2007; "What Is" 2007). We thus had already been incorporating into teacher preparation discussion about the affordances of modes and technologies for teaching, learning, and composing, but we knew we needed some computerized classrooms where more direct teaching and learning with digital technologies could occur, especially as we sought to push our curriculum toward helping students analyze and compose more cutting-edge digital projects (for example, audio essays, video remixes, 3-D worlds).

Networking for Change

As we set out to develop digital laptop classrooms and a digital pedagogy, we needed to connect with stakeholders across campus. Although composition is a service course to the university, it has historically enjoyed a place of privilege and freedom at Miami: privilege in that it forms the foundation of the Miami Plan, the general education core curriculum, and freedom in that Miami emphasizes a strong liberal arts education. The Miami Plan and composition curriculum emphasize critical thinking, understanding contexts, engaging with other learners, and reflecting and acting. Unlike programs at some universities, the composition program was not pressured to emphasize a narrow range of skills. This meant, however, that in persuading stakeholders to help us develop digital classrooms and pedagogy, we had to reassure them that we were not diluting the intellectual focus of our writing classes.

To do this, we emphasized the ways in which digital technologies would help expand the possibilities for teaching and learning—presenting new rhetorical situations and potentially global audiences for communicating; allowing for the increased integration of images, audio, and video into print-based and web-based texts; developing in students more sophisticated research skills; and providing them direct instructional opportunities to become better critical writers, readers, and researchers in a variety of rhetorical contexts that they may face in their academic and professional careers. We made this argument in memos to and meetings

with the president and provost and to other entities on campus—and in constructing it, we drew from the excellent article "Why Teach Digital Writing" (WIDE Research Center 2005). Key to our argument to those administrators who were less familiar with emerging trends in writing was that networked connectivity and multimodality have changed writing contexts, that students need opportunities in class to analyze and compose in these new contexts, and that doing so would improve their critical thinking, writing, and research—particularly their ability to evaluate online information and resources.

Because we were able to successfully argue for the need and the potential benefits of integrating digital technologies in the writing classroom and because Miami University was launching a laptop purchasing program where incoming students are strongly encouraged (although not required) to purchase laptop computers, we received internal funding from the provost and from the vice president of information technologies to develop several digital classrooms.[4] In 2006 we unveiled a new laptop classroom with a teacher station computer, projector, DVD player, document project, and wireless connectivity for use exclusively by the Composition Program and a desktop, high-end new media lab to be shared by English and Interactive Media Studies. In 2007 we opened another laptop classroom, enabling us to teach 30 percent of our more than 130 sections per semester with digital technologies. In 2008 we added another laptop classroom, enabling us to teach 42 percent of our sections with digital technologies. In 2009 we added one more laptop classroom, and in summer 2010 we added three more, enabling us by fall 2011 to teach more than 85 percent of our first-year writing classes in laptop or hard-wired classrooms. (Because of the Miami Notebook program, 98 percent of incoming students at Miami own laptop computers that they can bring to class. For those students who don't own laptops, they may enroll in sections offered in hard-wired labs.[5])

Materials Secured: On to Course Goals

Back in 2006, once we knew we'd secured the material spaces for teaching in digital classrooms, we administrators and graduate student instructors met to decide if we wanted special course goals for the digital sections. Our Composition Program's goals are adapted from the *WPA Outcomes Statement for First-Year Composition* (WPA 2000) and address both composing processes and rhetorical knowledge. We soon realized that we did not want to create new, special goals for the digital writing

sections, but instead that we should revise the overall program goals, since all composition students—whether taught in rooms with digital technology access or not—benefit from explicit consideration of the multimodal elements of composing as they learn to make critical, rhetorical choices about modes and technologies for delivery.

Specifically, we added to some of our outcomes such elements as these (words in italic indicate changes): "A student should be able to choose appropriate conventions of form, structure, voice, tone, and diction *and appropriate technologies that assure accessibility to a range of audiences. . . .* By the end of the first year, students should understand how particular audiences, genres, *and technologies* shape reading and writing; *how multimodal elements of texts (images, sound, design) can have rhetorical effects; how to choose, critique, and experiment with multimodal elements, genre, or a mix of genres, for a rhetorical purpose*; the rhetorical, collaborative, social, and *technological aspects* of writing processes and products." Interestingly, as multimodal composing percolated through our program goals, it influenced rhetorical outcomes the most, not merely the composing skills, as might at first be imagined.

We might not have been prompted to make these changes to our outcomes if we hadn't been faced with the many teaching and learning opportunities made available by the digital classrooms. The biggest and most important changes, however, came in our instructor preparation programs. We wanted to ensure that we did not merely "add on" digital classrooms but fully integrated and supported a digital pedagogy. To that end, instructors and administrators redesigned the teacher-training classes, added a new practicum, and developed special multimodal workshops. We applied for and received several small internal grants to support these efforts, including funds to bring in nationally recognized leaders in multimodality for presentations and workshops.

INSTRUCTOR PREPARATION AND DEVELOPMENT

In the article "Beyond Imagination: The Internet and Global Digital Literacy," Lester Faigley (1999, 138) offered six characteristics for the "best possible learning environment with technology." Of these characteristics, we realized that the fifth, "training and support for integrating technology into the curriculum," would be one of the most important to the success of our digital initiative. In the late spring and early summer of 2006, interested writing instructors met with the aims of planning a digital curriculum and finding a name that could represent this

diverse group. The Digital Writing Collaborative was chosen because it seemed appropriate to call ourselves a "collaborative" to emphasize the range of resources each person brought to the table. Our technological backgrounds and pedagogical interests ranged from those comfortable with high tech to those who call themselves "old school" when it comes to technology. We began with a commitment to validate this range of interests. With our various perspectives, we sketched out what it might look like to teach in multimodal ways with the affordances of technology. We were at once excited and intimidated to be part of this new movement in our composition program but also cautious about not getting too carried away with technology and losing sight of program goals.

One of the first actions of the new DWC was to meet with the director of Composition and the graduate student editors of *The Teacher's Guide*, a yearly internal publication that serves as a manual for teaching the major sequences of college composition courses. The bulk of the guide maps out composition goals, classroom activities, and major and minor writing assignments for the semester. The guide has always been a great resource for instructors, seasoned or new, and is updated yearly with new ideas and curriculum changes, and we felt it was important to include a new digital section—one that would adapt assignments to digital environments and provide some new ideas as well. Although the ideas published were helpful, each teacher needed to work them over to more fully develop, remix, or refine the assignments to suit their and their students' interests, technological abilities, and teaching and learning needs.[6]

The composition theory summer seminar required of first-year graduate instructors was an obvious place to infuse training and support for the digital initiative. The aim of the course is to help new graduate instructors think through how they will construct and teach the standard composition syllabus. The course had already been providing teachers with tools for incorporating technology and multimodal assignments into their first-year composition courses: for example, learning to use our course-management system (now Sakai-based), virtual chat rooms, digital journals, message boards, discussion forums, Listservs, and the composition wiki. The emphasis was not on using technology merely for technology's sake but on incorporating only what each instructor felt comfortable with and what furthered particular pedagogical and writing goals. In this first seminar for graduate instructors we did not introduce the specific technologies of the new multimodal curriculum (for example, building web pages or composing sound essays) but instead focused on developing a solid base of self-reflective, multimodal teaching habits. We

did introduce the first-year graduate instructors to the new DWC and digital classrooms and invited them to consider teaching in them after they had completed this seminar and the two, semester-long teaching practica all new instructors must take during their first year of teaching. As of 2011 all new graduate teaching assistants are required to teach in laptop classrooms. There are no longer special digital practica because approaches for integrating digital and multimodal composing are woven throughout the curriculum of the standard instructor preparation programs.

Flying with (Limited) Radar

Back in 2006, the first semester of laptop classrooms and the new multimodal curriculum, volunteer seasoned instructors (tenure-line faculty, part-time faculty, and graduate students) formed the lead cohort of instructors in the digital classrooms. What proved most helpful were the opportunities to talk with each other about our experiences. Before the first semester began, we met for three half-day workshops that involved some "how-to" and room orientation as well as presentations from individuals across campus (the campus coordinator of our course management system, the lead IT classroom support contact, a library specialist in teaching students online research). To continue the support during that first semester teaching in the digital classrooms, the graduate students of the cohort met for a biweekly practicum to discuss issues that were surfacing in practice. We spent hours grappling with ways to effectively integrate digital technologies so as to meet students' learning needs and the goals of college composition. In essence, the first semester of teaching in the digital classrooms seemed like a collective experience of flying with only limited radar. Concerns that couldn't have possibly fit into the biweekly practicum spilled over into small networks of sponsorship, some of us meeting in coffee shops, chatting on the phone, via e-mail, and so on to swap ideas and tell our stories about how we were negotiating digital, multimodal pedagogy.

To encourage discussion and collaboration beyond the biweekly practicum, the DWC also offered sponsored workshops on specific techno-pedagogical issues. In all, the DWC offered twelve workshops during the 2006–7 school year: participants learned to blog, create audio essays, manipulate images, make movies, and build online gaming characters while considering how such technology changes the possibilities for multimodal composition. Workshops and lunchtime discussions are still a

key component of our instructor outreach. Each semester, instructors in the DWC offer six to eight workshops and discussions. These opportunities to share our work and to learn from each other are crucial for the sustainability of the program.

Sustaining Flight

Faigley (1999) has argued that "training reduces anxiety and increases understanding in how to use technology." In the second year the DWC in its role in the Composition Program faced two challenges: continuing to develop digital, multimodal pedagogy and training instructors in its use, while sustaining the energy and commitment of the teaching community. To build on the knowledge and experience gained in the first year, a great deal of digital archiving of materials occurred, some available publicly on the Web and some available only to members of the Miami University community at the DWC Blackboard site.[7] In addition to the digital resources, face-to-face resources were and continue to be developed.[8] As well, the workshop series continues, led by DWC instructors, and there are weekly mentor meetings for all instructors who are (or who are interested in) integrating multimodal, digital composition in their classrooms (whether they are teaching in the digital classrooms or in more traditional classrooms).[9]

Many things did run more smoothly in our second and subsequent years of the digital initiative. For example, since we've all now actually taught in the digital classrooms, the assignments in the teacher's guide have been revised and refined. Our series of workshops and discussions (twelve per year) are known and expected events with topics changing each semester to meet changing needs. And the DWC will continue to bring in guest speakers and, with the generous help of Bedford/ St. Martin's, sponsor a prize for the best digital, multimodal composition for students enrolled in first-year writing courses.

INSTRUCTOR REFLECTIONS ON VARIOUS MODES AND MULTIMODAL ASSIGNMENTS

As with the integration of any pedagogy, the integration of multimodal composing occurs along various continua in our program. Most instructors develop assignments asking students to analyze the rhetorical effectiveness of various multimodal texts created by others (for example, commercials, YouTube videos, audio essays, digital storytelling projects).

But many instructors also develop assignments that engage students not just in analyzing but also in producing multimodal texts. This move to multimodal production wasn't, of course, entirely new. As Gina Patterson, one of the instructors from the lead cohort explained: "The biggest 'step' I experienced in the digital classroom was to slow down, not panic, and realize that I had previously been teaching multimodality and asking for multimodal assignments before I ever entered the wireless laptop classroom." The addition of access to digital technologies meant that instructors and students now had a wider array of options for multimodal analysis and composing, including opportunities to teach and to learn new genres and new technologies. In the sections that follow four instructors share narratives of their experiences engaging students with the analysis and production of multimodal texts. These narratives, from both experienced and new instructors, bring to the fore pedagogical benefits and issues to consider with multimodal composing.

Phill Alexander: Gaming as Multimodal Reading and Composing

An effective way to integrate multimodality and digital media in our composition classrooms is to meet students where many of them are already using digital media technology: video games (see Morbey and Steele's chapter 10 in this edited volume). At Miami University we ask our students to begin the second semester of first-year composition by creating an inventory of their reading and writing habits. Once, upon hearing the assignment, two students came to me with a concern, which I paraphrase here: "Um . . . we don't . . . um . . . read. And we only write what we have to." I asked, "So what do you do in your free time?" It turns out these two young men described themselves as "obsessed" with *Halo 2*, a first-person shooter game for the Xbox gaming system. They had a clan (a team of networked players), and their clan had a webpage with online discussion forums where they shared strategies, planned battles, and so on. One of the pair also spent hours playing a game called *The Elder Scrolls III: Morrowind*, a role-playing game that required the player to develop a complex character and interpret intricate visual, textual, and aural puzzles while exploring a digital world. The other played *Madden* football regularly and maintained "virtual" franchise webpages that tracked the progress of his team throughout the season(s) he played; the page included video clips, still images, box scores, and user-developed game summaries. Both spoke of hours of "playing," which included hours of reading forum posts, hours of posting messages and participating in

game chats, hours of watching YouTube videos generated by other players to illustrate strategies and concepts, and the hours spent in all the other reading and writing activities that went into finding solutions to their gaming problems. In five minutes of banter, these two young men who claimed to "not read and write" described their roles as highly literate participants in a set of gamer discourse communities.

Gaming currently occupies an interesting position for scholars and teachers. As we seek to incorporate digital and multimodal elements in our classrooms, we must remember that we walk a fine line. Many students play with these technologies (whether it is in console games such as *The Sims* or *Halo* or in online worlds such as *World of Warcraft* or *Lineage* with thousands—or millions—of players). While that sense of play and desire to create can be harnessed for educational purposes, we also run the risk of alienating students by "invading" their discourse and making it "academic"—or in student's terms, we could potentially "suck the fun out of it."

At the same time, gaming is the ideal starting point for a discussion of multimodality that engages without feeling exactly like "work." During one course I had a group of students visit the online Adobe Flash game *The Crimson Room* (Takagi 2004). The goal of *The Crimson Room* is actually quite simple: The gamer is placed in a first-person gaming environment, told he or she had "too much to drink last night," and must find a way out of the room. Initially, it seems almost too easy, and anyone playing the game—seasoned gamer or gaming novice—begins clicking around the environment, reading visual, audio, and textual clues while using the mouse to explore the room. Most gamers click to "stand" and immediately try the doorknob. But the door is locked. This starts an exploration of the room that can take hours, as the gamer checks every remote corner of the small, simply rendered room/world, trying to locate the door key.

Something interesting happens when I show people *The Crimson Room*. It's meant to be a quick, easy example of a video game space. The interface and mechanics are simple. It can be played on any computer that can run Flash Player. And initially it looks boring. But players get sucked in. With both undergraduates and graduate students—and even a professor observing one of my presentations—there's a quick jump from "this is interesting" to "wait, wait, I think I've got it!" The game moves from being a simplistic example to presenting a challenge, the challenge becomes fun, and that fun generates energy. In some cases people have contacted me the next day to inform me that they continued playing late,

late into the night. A quick Google search for "Crimson Room" shows that those who e-mailed me are not alone; the game generates responses ranging from awe to anger each time a new gamer takes up the task of escaping the room.

What I have described here is *multimodal reading*, as the game requires visual, textual, and auditory observation for a gamer to have any real success in solving the puzzle. The input, however, might not seem like multimedia composing. The gamer, after all, is simply moving the mouse and clicking to explore. This is where one must consider the definition of gaming. Gamers who identify with the now expansive and multifaceted gaming community would define all actions involving the game to be a part of the gaming experience. The e-mails I received from people caught in the web of *The Crimson Room* would be game-related writing. The fan-generated websites, the image-based tutorials, and fascinating little pieces like a five-minute YouTube video entitled "Crimson Room Tutorial," which was created using a screen-capture program, a video editor, and music, would be considered game-related writing. The nature of gaming—the "jump in and play" concept that makes gaming fun and which snares even those who might skeptically think that *The Crimson Room* is a simple puzzle—serves as a multimodal digital echo for the "process" concept of composing.

Activities centered on gaming can—and, I would argue, *should*—be more complex than the one-session exploration of *The Crimson Room* described here, but the idea itself would work well for projects large or small in scope. Introducing students to a game, allowing them to explore, collaborate, and attempt to play/thrive/succeed, then asking them to create texts that analyze and reflect on their experiences is one way in to the reading and writing of multimodal compositions.

Michele Polak: Web Authoring and Digital Subjectivities

I didn't realize it when I first started teaching composition, but gradually I became aware of the fact that I would need to make the move toward incorporating multimodal forms of digital technologies into my pedagogy. Students in my classes were bringing their digital literacies to the classroom before I even thought to consider using the digital environment as part of their writing process.[10] They exchanged peer drafts through e-mail and responded to these drafts electronically, long before I finally gave in and followed suit. When the opportunity to teach in a digital classroom arose, I didn't just jump toward volunteering—I lunged.

At the start I had every intention of utilizing the digital environment to its fullest potential. The data were telling me that many teens with access were online; my dissertation research sent me into a whole netspace of active adolescent girls who were building and maintaining their own websites. I was hoping to see this in action, so I decided on a website assignment for the Design Your Own Project sequence, partnered with a paper based on an issue of public debate. Knowing that many professors would still require the standard "college paper," I didn't want students to be at a loss when they encountered traditional classrooms with no options for digital projects, so I used the argument sequence to assign a paper on a topic of public debate. I emphasized research during these weeks, teaching students how to navigate citation and plagiarism issues both traditionally and electronically; I still wanted them to familiarize themselves with the campus library and also to focus on how argument worked in both traditional paper-based as well as in web-based forms. When we discussed the upcoming website assignment, I encouraged students to choose topics they would be willing to research for the last half of the semester.

Once I responded and graded all the public debate papers, I introduced the new web-authoring sequence by placing students into groups based on similar topics. I designed the website assignment to include both a collaborative element and an individual effort. Each group was to create one homepage that introduced the shared issue of public debate with links to each student's own website. Each individual website required a minimum of four pages with a set number of graphics and other visual elements. Students used and revised text from their public debate research papers to build their pages and focused on making rhetorical choices as to how to compose and arrange text and image.

I was excited about this assignment. My research was telling me that this is a generation of students who grew up with technology; they have "never known life without the Internet" (Oblinger and Oblinger 2006, 8). I saw them surf the Web in the few minutes before class began, talk about chat discussions, and download music and videos. What I didn't expect was that out of my two course sections, not one student out of the forty-four had ever built a website. And what I didn't anticipate was how many students initially lacked the confidence to move forward with the assignment. As their drafting and website sketches proved, their ideas were strong. They utilized everything they had learned about rhetoric and argument to make creative choices about the visual and textual

elements of their webpages. Yet despite how much they actually were using new technologies, they lacked the assurance that they could bring their writing to a digital platform. I slowly began to realize that it wasn't the software (Dreamweaver) that made them hesitant but some nervousness because their writing was going to be made public and available for anyone outside our class to view.

Many of their topics were highly political, and they realized that their websites could be viewed as representations of their identity. Joanne Addison and Michelle Comstock (1998, 374) have noted that "providing space for participants to articulate their positions is central" to many of the various websites created and posted on the Internet, and this was apparent for my students' sites. While the digital classroom obviously provides a space to compose in a variety of multimodal forms, I didn't fully appreciate how going multimodal also opens up a space for (re)considering and (re)presenting subjectivity. Ultimately, the website assignment surprised both my students and me. Despite their initial lack of confidence in moving forward, students produced websites based on strong rhetorical choices.

Tara acknowledged: "I was amazed that I was able to do something like making a website, so I'm pretty happy with the outcome. . . . The part I disliked about this assignment was first learning how to do everything. I didn't like being frustrated and not knowing what to do, but now that I finished it, I'm extremely happy with what I've done." By the completion of the assignment, reflections were generally positive. Meghan said: "Creating my own website has probably been the most rewarding project I have completed."[11] Although I probably won't change the website assignment structure much, I will add a day for discussing how moving our work to a public forum changes how we think about our writing and our identities. Placing myself alongside students in the learning curve, I will also need to revise my own pedagogy and assumptions that multimodality is just about verbal and visual texts; it also involves remaking subjectivity.

Abby Dubisar: Audio Projects and Public Audiences

With the ever-expanding network of mobile devices for accessing the Internet, the audio delivery of writing is omnipresent in our lives. As writing instructors preparing students for academic, professional, and personal writing in an age of YouTube and iTunes, we need to help students

become better listeners to themselves and to one another, and to translate this better listening into improved understanding of writing and rhetoric. In an effort to show my students how they can improve their own writing by listening to themselves and their classmates, I incorporate audio components into my first-year writing courses. I wanted to make literal for them what I was hearing from their pages. For me, using audio in the classroom is a way to put into practice what I want my students to learn about audience, argument, organization, style, tone, and word choice (to name just a few). To these ends, I include in my courses published audio "texts" to be rhetorically analyzed and project assignments that ask students to write, record, edit, and revise their own audio essays.[12]

Another pedagogical goal associated with using audio is situating such projects within the curriculum to help students practice the analysis and production of arguments in different forms, for different purposes and audiences. Audio assignments create opportunities for class discussions about copyright (and copyleft), about Creative Commons, and about the importance of free software, since my favorite cross-platform audio program, Audacity, is free and open to everyone. Creating a course with an audio component therefore is an investment yielding a great return in the discussions, activities, and projects it produces. Instructors can incorporate audio components into classes in a variety of ways. One approach I've used is to have students create audio research-based essays. Students created NPR-style segments based on traditional research, which they included in their annotated bibliographies and written scripts. The goals of these essays were for students to collaboratively work together to extend knowledge of an issue, group, or event that had been discussed in class. To begin, students listened to examples of audio essays and then we discussed them together, noting what was more or less successful in the works we heard. In completing these projects, students had to make choices, such as deciding which information was most essential and informative, what their specific audience already knew about their topic, how to arrange information to catch listeners' attention, and how to layer music and other sound elements to transition sections of the narrative. Students first wrote their audio essays as scripts and created visual outlines to represent the layers of sound, revising, reordering, and editing as they worked. Because of the way these projects were scaffolded—starting with research questions, then investigating and (re)searching to narrow the focus of the project—and the amount of writing that went into all of these stages of planning and producing, it is evident that the work of such projects mirrors the same skills and practices of traditional writing

assignments while allowing the students to experiment with the possibilities of a new technology.

Most recently I have asked students to collaborate in small groups when working on audio assignments, and instead of producing longer essay-style segments, I have assigned each group to compose three one-minute audio public service announcements (PSAs). These PSAs focus on a specific issue the group feels is important, and each of the three PSAs is directed at a different audience, reaching a different space or demographic (see Appendix A at the end of this chapter for the prompt for this assignment). I encourage students to choose local topics and audiences in an effort to make the work relevant and specific. For example, one group focused on resident hall safety, making three PSAs aimed at students, residential hall assistants, and university administrators.[13] Because the writing curriculum at Miami asks students to "enter public debate" in one of the writing sequences, I find the PSA to be a fitting assignment.

Beyond the curricular connections and practice in composing that audio assignments facilitate, I have also found peer response and revision to become more active when working with audio components in writing courses. I can conduct a whole class or partial group peer review during which classmates give written feedback about what is or is not working in a particular audio text. In doing so, the groups get a lot of feedback in a very short time, taking these feedback forms to their next group meeting to consider and potentially incorporate into their next revision. Furthermore, as a group's work is being critiqued, they watch their classmates' reactions to what they are hearing, noting what is confusing or enjoyable, if people laugh or grow silent. When the voice is broadcast and the listening is made literal, writing students can hear themselves and others in a productive and useful way. Including audio assignments can help students listen to themselves and their classmates, revise their compositions, and translate their ideas into a range of modes for different audiences and spaces.

Chanon Adsanatham: Video Projects and Collaboratively Building Multimodal Grading Criteria

In teaching composition, I aim to help students become informed and competent audience/authors of rhetorics. I work to raise their awareness that texts are ubiquitous by exposing them to and teaching them about different forms of discourse—alphabetic, visual, aural/oral. Students engage

in critical reading, writing, listening, and viewing activities throughout the semester. Near the end of the term, they produce an argumentative multimodal clip that demonstrates their cumulative understanding of the rhetorical functions of sounds, images, and alphabetic texts.

While digital video is not a foreign media, students may not be cognizant of its rhetorical operations and effects. Teaching how to compose a multimodal clip helps learners become rhetorically aware and critically perceptive about a pervasive medium and enables them to see and use technology as rhetorical tools to enrich their communicative options and abilities. Students learn to acquire what Stuart Selber (2004, 25) has called functional, critical, and rhetorical literacies in which they become users, questioners, and producers of technology. To launch the multimodal project, I begin with a unit on research and argumentation.

Students in my class spend five weeks learning how to conduct research and write a five- to six-page scholarly argumentative essay about a public issue. They learn syllogism, enthymeme, fallacies, citations, and academic conventions. Once the essay is finished, I begin a sequence on multimodality in which students learn to recast their essay arguments into a three- to four-minute multimodal clip designed for a specific public audience. Their project must include still images, sounds, and alphabetic texts, and the finished product is exhibited on YouTube for public viewing. (Students know from the outset of the class that their video project will be posted to YouTube so they make rhetorical choices accordingly.) Altogether this unit requires four weeks to complete, and throughout this period I help students learn to use video-editing software such as iMovie (for Mac) and Movie Maker (for PC), introduce them to Creative Commons, and teach them about copyright ethics. Most important, I engage them in two crucial exercises that are designed to sharpen their multimodal senses and to prepare them to compose their own video project: biweekly critical viewing of sample clips and collaborating on the grading criteria for the final project.

For the critical viewing, twice a week during this unit I ask students as homework to watch three to five multimodal clips of disparate qualities on YouTube. Some works are made by amateurs, and some are created by professional organizations such as PETA and Barackobama.com. I want to expose students to a variety of examples so that they can learn to evaluate and judge the rhetorical effectiveness of various video media. Before assigning the homework, however, I introduce the concept of critical viewing. I explain to the class that critical viewing involves closely

and rhetorically observing multimodal works by paying attention to how images, sounds, alphabetic texts, and digital effects are used to construct and cohere—and in some instances, detract from—a clip's message. To guide the viewing, I provide a set of critical questions that lead viewers to pay close attention to rhetorical elements in the clip (see Appendix B). The questions provide the scaffolding to help them build critical perception and awareness of how the text operates and how it is composed. After the viewing, they write responses to the critical questions and share them in an online discussion forum with classmates. This viewing assignment prepares learners for the next activity in the unit: building collaborative grading criteria for their multimodal project.

Rather than my simply handing students the criteria by which I'll grade their projects, I instead invite the class to develop the grading criteria in a collaborative, collective process. I first ask each person to design a grading criteria sheet that will be used to assess his or her work, providing the following instructions (see Appendix C for the full prompt): the criteria must clearly define the features of an effective clip; they must address the usage of images, sounds, transitions, text, clarity, persuasion, and arrangement; they must be thorough and thoughtful; and they must be specific. Once students have devised their criteria sheet, I have them post drafts on Blackboard for their classmates to review and comment upon. Students then revise what they have developed, depending on the feedback received. I then have them use their finished criteria to evaluate the biweekly videos assigned for homework viewing; they detail each clip's strengths and weaknesses by referencing the standards they have formulated.

Once all of the grading criteria are submitted, I consolidate them into a single comprehensive document. I have the option of revising, expanding, and building upon what the class produced, if necessary. What they delineate, however, is typically more complete and complex than what I might have designed on my own, so I have not had to add any additional criteria. I then distribute the finalized evaluation sheet to the class and use it to grade students' works (see Appendix C).

Building collaborative grading criteria is useful in many ways. First, it helps students synthesize their knowledge about what makes an effective multimedia clip, and this in turn provides an indirect way for me to assess their understanding of multimodality and rhetorical principles. Second, it enables me to intervene and correct any misunderstanding that a student might have about project requirements and expectations before she

or he begins composing. A learner in my class, for instance, thought it was crucial that alphabetic texts accompanied every image and screen so that his arguments would be clear. He made that a required criterion. Having read what he submitted, I was able to talk to him about how having too much text can be problematic and to show him how to use sounds and images to assert and enhance his arguments. Third, collaborating on the evaluation criteria demystifies the grading procedure and allows students to see how they will be evaluated up front. Finally, the evaluation criteria can be used to guide peer response. All in all, building collaborative grading criteria for multimodal projects offers many pedagogical benefits for both students and instructor.

CLOSING IMPLICATIONS AND RECOMMENDATIONS

The teaching narratives offered by Phill, Michele, Abby, and Chanon are only a small sampling of the digital, multimodal assignments that instructors developed, but they demonstrate both the risks and rewards of teaching digital, multimodal writing. In addition to upping the fun factor, multimodal assignments can tap into students' creativity, hone their research skills, mobilize their rhetorical knowledge, and heighten their awareness of audience and writing's power to shape and represent identities. These are big rewards, but the risks in teaching multimodal composition are real as well and might be too daunting to some. Risks include the sharp learning curve needed to use software, glitches and unforeseen problems in carrying out assignments, students' discomfort with new technologies, the fear (or reality) that multimodal skills may not carry over to academic learning. This last risk can be a fear (of students, teachers, and program administrators) that undermines the reputation of a writing program, and so it needs to be addressed.

As any writing program administrator can attest, it's not enough to revise curriculum or even make it more appealing for students. Administrators also must be able to show that what they are doing is "working"—both to university stakeholders and grant sponsors who have supported curricular change. More important, we need such assessment information for students and teachers in our writing programs, as we seek to continue to revise and refine our curriculum and teacher training. In 2006, in our first year of the new digital and multimodal curriculum, we conducted a study that involved pre- and post-surveys of students, interviews with students, and a direct assessment of student writing in the digital sections. The findings from surveys and interviews showed that students

enjoyed their learning more in the digital classrooms and felt that having access to computers and to multimodal composing expanded their opportunities for learning.[14]

Since our composition courses form the foundation level of the Miami Plan, we focused our direct assessment on how well student writing demonstrated critical thinking—one of the four learning goals of the Miami Plan. One of the important questions we and other university stakeholders had was whether students in digital classrooms, with an emphasis on multimodal pedagogy and composing, would develop their critical thinking at a level similar to students in traditional classrooms. There's always the worry that in computerized classrooms too much time might be spent on teaching basic-level "how-to" of technology issues and less class time might be given to serious intellectual inquiry. An important part of our assessment of the digital initiative, then, was to systematically collect and directly assess student writing from digital classes for evidence of critical thinking. For comparison, we chose to collect a sample from the same assignment (Sequence III: Argument and Research) that we had collected the year before from traditional classrooms, and to use the same rubric (one we adapted from the Washington State Rubric of Critical Thinking) to assess the digital writing sample.

Direct assessment scores showed that student writing done in digital classes compared favorably to writing produced in conventional classrooms. The scores of critical thinking traits in student writing done in digital classes were similar to the scores of writing produced in traditional classrooms. A two-sample t-test comparing the average of the 2005 nondigital classroom scores and the average of the 2006 digital classroom scores found that there was no significant difference between the two.[15] This data suggested that students' critical thinking abilities were being developed at a similar level in both regular and digital classrooms. We found these results encouraging, as did the higher administrators with whom we shared this information, because it showed that even as students write in more multimodal environments, producing blogs, websites, videos, audio essays, and gaming discourse, students are demonstrating as much critical thinking in their writing as they do in more text-centric composition courses. However, we are cautious about drawing too many conclusions from this direct assessment, because the assignment we collected was one that most students did as a traditional paper, not as a multimodal composition. We are currently in the midst of conducting direct assessment of students' multimodal projects for purposes of program assessment, piloting an assessment of students' e-portfolios that

will include all of their major assignments, drafts, and reflective writer's letters for every assignment. We are especially interested in assessing how students' multimodal composing projects are meeting course and Miami Plan goals.

There are many essential components for sustaining a program-wide focus on multimodal pedagogy: preparing and supporting instructors, developing curriculum, securing and maintaining material and administrative resources, and conducting program-wide assessment. Balancing all of these is a challenge, but our institutional history—of commitment to the best practices of composition and to intensive training of our instructors—makes us hopeful that we can sustain the DWC. With a thirty-thousand-dollar internal grant from the provost for instructor training and curriculum development and with funding from IT for more digital classrooms, we have secured the needed resources to reach our goal of providing equitable learning opportunities for all first-year composition students at Miami's Oxford campus, being able to offer 100 percent of our English 111 sections in digital classrooms by fall 2011 and 75 percent of our English 112 sections.

One key ongoing concern is about access and fairness. In our digital classrooms we rely on students arriving with their own laptops. Although 98 percent of incoming students to Miami University's main campus bring laptops, 2 percent do not, and that 2 percent concerns us. In our discussions with administrators we have been active in urging the university to make laptops available to those who cannot afford to purchase one of their own. Each year Miami is able to provide approximately twenty-five laptops to incoming full-scholarship students who are enrolling under Miami's new access initiative for low-income students, but obviously that number is woefully inadequate for providing laptops to all students who need them. We will use our story of success with digital classrooms and our university network of supporters to continue to push for a program that will buy laptops for any student who cannot afford but wants one. We also continue to support and use a hard-wired lab for scheduling composition sections so that students who do not have access to laptops may be enrolled in sections with computers. As the first-year students who presented at the Conference on College Composition and Communication in 2007 noted, we live in a multimodal and increasingly digital world, and it's imperative that we ensure that all instructors and all students have opportunities to teach and learn in with digital multimodalities.

APPENDIX A. Entering Public Debate: Audio Public Service Announcement Assignment (Instructor Abby Dubisar)

Your assignment is to work with your group and compose three one-minute audio public service announcements on a topic of your choosing. You will also do a significant amount of writing as you prepare, plan, and compose this project.

Select a public issue topic that you care about and one that allows for discussion. I encourage you to rely on the work you've done for Sequences 1 and 2, thinking about public issues that are related to space. Choose something that is being discussed (that has been documented) and one that will allow you to continue the conversation, extending it in a new way. In this assignment you will be an inventor, constructing a new argument that doesn't just reinscribe arguments made by others but rather extends existing arguments and becomes your own.

This is a research project. Part of your task is to see how other authors have framed this issue. What arguments have been made? How can you use an understanding of existing arguments about an issue to construct your own argument about it?

This is a project where you will choose a *very specific audience* and address them through the use of a public service announcement. Think about your rhetorical situation and use it to your advantage. Consider the contexts in which your PSA will be broadcast and heard (for example, what television stations—played during what shows? what radio stations? if it is going to be broadcast, where will that happen?, and so on). How exactly will you reach your intended audience?

Once you have selected a topic, formulate a research question. A research question gives you a focus: your goal in this project will be to answer the question. The research you do is going to provide the evidence you need to answer this question; any conclusions you draw will come from the evidence. Your research question is a guiding feature that you can refer back to, revise, and use throughout the whole project. Ultimately you will have a project that intelligently discusses material that you have gathered and hopefully provides some new insight into the subject. This is a project where, through your research, you will become an expert on the topic you've chosen.

Research: The project requires that you have a minimum of five sources that appear in the final three PSAs. You should have considered and read at least ten sources by the end of this process in order to have chosen five

good, appropriate sources. Include all these sources in your bibliography so it is evident that you have done a lot of work on the topic.

Incorporate sources: You will need to be able to appropriately place quotations, paraphrases, and summaries in your audio text. This includes introducing them properly and showing your audience why the quotations you use are important. Your project, in the end, will need to have the following: a main idea or thesis, focus, coherent points, and clarity. In constructing this announcement, you should use rhetorical strategies. One of the most important elements is audience selection. Who do you want to reach with your message and why? Because this is a group project, you will be spending time outside of class meeting with your group members and working on the project. I suggest you exchange phone numbers, e-mails, and so on to make sure you can find one another and schedule meetings.

APPENDIX B. Critical Viewing Assignment Prompt (Instructor Chanon Adsanatham)

Clip 1

As you watch the clip from the Humane Society of the United States, pay attention to the following:

1. How are the images arranged? In what order do they appear? Is there any logic to them?
2. What makes the clip memorable and why?
3. What sounds do you hear first, next, and afterward? Why do you think they are put in that order?
4. How are quotations used; why?
5. How is ethos utilized?
6. What do you like about this clip that you might try to emulate in your own?
7. Is there anything that you dislike?

Clip 2

As you watch the PETA clip, pay attention to the following:

1. How does the author create balance between logos and pathos? Be specific. Does she or he use interviews, factual descriptions, and so on?
2. Why do you think the clip doesn't contain music like other ones?

3. Listen to the voice of the narrator. Each voice has a distinctive style, and each one provokes different reactions. How would you describe the narrator's pitch and tone? What are their significance?
4. What colors are present in the clip? What rhetorical purposes do they accomplish?
5. Is there anything missing in the clip that you might add? What might you incorporate to make it more effective, if anything?

Clip 3

As you watch the clip about racial discrimination, pay attention to the following. Please watch it three times.

First round: Pay attention to how the arguments are conveyed—through images, quotations, sounds? Observe how colorations are used. What are their functions? Also, read the texts that are provided. How do they enhance or detract from the mood of the clip?

Second round: Pay attention to the Kilburn effects—that is, how images pan, focus, and zoom from one area to another (for example, begin in the middle and then zoom out). What effects do they create? Additionally, listen to the music provided. How does it correspond and sync (or not) with the images? What reactions are evoked?

Third round: Think about how images are organized. Do you see any coherent theme in their ordering? What do you see first, second, third, last? How does the sequence enhance or detract from the clip's effectiveness?

APPENDIX C. Final Evaluation Criteria for Multimodal Projects Compiled from Student-Generated Criteria (Instructor Chanon Adsanatham)

(Note: To validate students' work, the instructor quoted the criterion exactly as the students had submitted it, so there is a lack of parallelism in the entries.)

Images

1. Do the chosen images reflect creativity and efforts?
2. Are the images interesting, keeping the viewer's attention?
3. Be sure to leave the images up long enough for the viewer to see them but not so long as to bore them.
4. Do images visually explain the argument? That is, the images are a great

depiction of the argument and clearly and effectively persuade the audience.)

5. Images should be clear, and the viewer must be able to make out exactly what the picture is.
6. Do the images enhance and enrich your argument? That is, they are not irrelevant or "place holders." They convey rich meanings.
7. Does each image have high-quality resolution and no trace of graininess?

Sounds

1. Music or sounds are used appropriately and make sense with the rhetorical strategy being used. This is not a music video; the sound should enhance the message of the clip and not distract from the images or persuasiveness.
2. Do the sounds flow smoothly, eliminating choppiness or awkward transitions in the music?
3. Are the sounds matched up with the clips or message behind the clips and images?
4. Does the music match the theme of the argument? For example, no techno music for a video about dying children in Africa.
5. Is the audio at the same pace as the presentation and flows smoothly with the slides?
6. It is obvious that time was taken to search for unique sound effects that influence the argument.
7. Sounds are organized and helpful to the understanding of the argument. They are relevant to the argument and cut in a manner that makes sense with the pictures.
8. Is the sound high quality (everything can be understood and heard)?

Transitions

1. Are the transitions appropriate for the message of the clip? Are they professional looking and go along with the mood?
2. Do the transitions connect the slides together, making it a clip rather than a slideshow?
3. Transitions between images and sounds are used where appropriate to enhance rhetorical appeal without distracting the viewer from the images. Having a goofy transition between each image is not very persuasive and will most likely get annoying. Transitions should be used sparingly and only where they will have a specific purpose other than entertainment.

4. The transitions make sense to the emotions trying to be presented in the video.

Text

1. Is the text clear, legible, and provides only enough to get the point across?
2. Does the text correlate with the images and sounds, and adds another element without taking away from anything else from the clip?
3. Used when appropriate to support argument.
4. Enough time is provided to allow viewers to read and comprehend all text.
5. Is the amount of text controlled so the viewer isn't always reading?
6. Text is used effectively in its positioning, font, style, color, and content. It gives necessary information about the argument.
7. Is proper grammar used? There are no spelling mistakes, no capitalization errors, no punctuation errors.
8. Text is not mandatory to include within your multimedia clip if you don't want it. If used, it must be big enough and the color of text must stand out to be able to be read. Just like a PowerPoint presentation, too much text on one slide or image can be too overwhelming. Say what you need to say in as few words as possible.

Clarity

1. Do the pictures, sounds, text, and transitions create a flow as a whole that makes the clip enjoyable for the audience?
2. Is it easy to understand what the clip is trying to prove?
3. Is the information projected as easily digested and smooth?
4. Is the message of the clip focused and doesn't wander?

Persuasiveness

1. Would the audience walk away feeling affected by the video?
2. Does the clip provide enough information for the viewers to be convinced?
3. A variety of rhetorical appeals are used throughout the clip to persuade viewers to be for or against the topic.
4. All of the components above are used in a format that draws viewers into the clip and persuades them to keep watching. Make your clip memorable! Don't bore your viewer. Use exciting and bold images and music.
5. Does the clip make one want to help or further research the topic?

Arrangement

1. Are the pictures, clips, and sounds arranged in a way that allows for the audience to see the progression of the argument?
2. Is the arrangement in an order in which the audience can view the clip in a way that makes sense to them?
3. The arrangement creates a smooth flow that keeps the viewer interested.
4. Make sure your images and media are not scattered randomly throughout your clip; they should follow are particular sequence.
5. Does everything fit together as a whole?
6. Does the clip have any spots in which one part does not fit with the others?

NOTES

1. Howard Gardner (1993; 2000) has influentially argued for "multiple intelligences"; the New London Group (Kress 2003) charted modes and modalities and means to enact them in classroom settings. Gunther Kress and Theo van Leeuwen (2001) have theorized not only how modes work in isolation but also how the logic of each interacts and interanimates the other, arguing that rhetorical knowledge is even more important in designing the most effective interaction of verbal, visual, and kinesthetic modes. Bill Cope and Mary Kalantzis (2000) have moved outside the academy to consider how multimodalities and multiliteracies work in contemporary societal communications. In computers and writing studies, a number of special collections of journals—such as the sound issue of *Computers and Composition* (Ball and Hawke 2006), and a number of books, including Anne Wysocki et al.'s (2004) *Writing New Media* and Cynthia Selfe's (2007) *Multimodal Composition: Resources for Teachers*—have examined the intersections of multimodal composing and new digital writing technologies.

2. In using the terms "mode" and "multimodality," we draw most fully upon the New London Group (2000), who emphasize the importance of teaching multiliteracies and multiple modalities. Modes such as the linguistic, visual, aural, and kinesthetic have their own "functional grammars, the metalanguages that describe and explain patterns of meaning" (ibid., 25) through which to communicate. Multimodality then is the ultimate design of making meaning, "as it represents the patterns of interconnection among other modes" (ibid., 25).

3. See Mary Leigh Morbey and Carolyn Steele's chapter 10 in this edited volume for further discussion of the ways students, not educational institutions, lead the way into new digital technologies.

4. See http://www.muohio.edu/miaminotebook.

5. In 2006, 75 percent of Miami first-year students were already bringing laptops to college, so we were able to designate the digital sections "laptop required," indicating that students bring their own laptops to class. According to an IT survey, 70 percent of first-year students with laptops in 2006 were using PCs and 30 percent were using Macs. In 2010, 98 percent of first-year students brought laptops to college, and the ratio was 70 percent Mac and 35 percent PC. We plan all our curricula and prepare our instructor for cross-platform instruction.

6. In the fall 2009 teacher's guide, there is a special section on the Digital Writing Collaborative, but all sample syllabi for digital classes, assignment prompts, and class activities are integrated throughout the guide, a move that recognizes the increased integration of digital pedagogy in all aspects of the curriculum and for all instructors—those teaching in regular and laptop classrooms. In the 2011–12 academic year the teacher's guide migrated from being a PDF file available online to a folksonomic online collaboratory (hosted on the university Sakai course management system), where instructors and administrators can each upload and tag documents as well as add comments. Administrators are able to make suggestions to the table of contents through link structures that help new instructors plan their courses, and searching by such key words as "audio" or "peer response" also turn up documents. Thus there is flexibility and structure in the system.

7. See http://www.muohio.edu/dwc. Each year the Composition Program publishes exemplar, award-winning essays in a print-based text, *Composition at Miami*. Since 2006, with funding from Bedford-St. Martins, Miami also offers the Bedford-St. Martin Prize for Best Digital Composition, the winners of which are posted at http://www.muohio.edu/dwc.

8. Initially there was no official administrative recognition or support for the DWC. But in 2007 the English Department funded a part-time TA to serve as assistant coordinator of the DWC to help with administrative tasks and to be available as a resource to help instructors as they plan for and teach in the digital classrooms. Then, recognizing the need for a faculty administrator as well, in 2009 the department authorized a course release for the Digital Writing coordinator. Having administrative support is essential for the success and sustainability of our program.

9. In fall 2007 and in fall 2009, Miami hired two more specialists in digital writing and rhetoric (Jason Palmeri and James Porter).

10. According to a report sponsored by the Pew Internet and American Life Project, 93 percent of teens ages 12 to 17 and 95 percent of people ages 18 to 33

(so-called millennials) use the Internet (Purcell 2011; Zichuhr 2010). These are the students who enter our college composition classrooms—familiar with technology, bringing a digital literacy to their writing processes.

11. Student statements and texts are quoted with Institutional Review Board (IRB) approval and individual consent.

12. In all my classes I (Abby Dubisar) also address the sometimes limiting and noninclusive assumptions we have about who is an audience for our compositions. When writers imagine audiences with a range of sensory disabilities, they can use multimodality to reach a range of users. I have not yet taught the audio essay to a student who is deaf or hard of hearing, but I have thought about ways to universally design this assignment: all students would provide transcripts of their audio essays. A deaf student could make a video essay with signing and captioning, and if it is a group project, the other members could voice the audio components.

13. These PSAs may be heard at http://www.muohio.edu/dwc/student_projects/projects.htm.

14. See http://www.muohio.edu/dwc/perspectives.htm for video clips from the student interviews.

15. The t-test finding comparing the median rubric scores of 2005 and 2006 is T-value = -0.56, comparing 2005 mean of 5.104 to 2006 mean of 5.269. Because we kept a record of only the mean score for each trait, standard deviations could not be determined, and statistical significance of the changes in mean scores of individual traits could not be determined. We would like to thank Denise Krallman, Miami University director of institutional research, for calculating the statistical findings for us.

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